

## mgr - Fix #40008

### mgr/dashboard: Need a method to check references to Grafana dashboards are correct or exist

05/23/2019 04:46 AM - Kiefer Chang

<b>Status:</b>	Resolved	<b>% Done:</b>	0%
<b>Priority:</b>	Normal		
<b>Assignee:</b>	Kiefer Chang		
<b>Category:</b>	dashboard/monitoring		
<b>Target version:</b>			
<b>Source:</b>		<b>Affected Versions:</b>	v14.2.0, v14.2.1, v15.0.0
<b>Tags:</b>		<b>ceph-qa-suite:</b>	
<b>Backport:</b>	nautilus	<b>Pull request ID:</b>	28234
<b>Reviewed:</b>		<b>Crash signature:</b>	
<b>Description</b>			
Ceph Dashboard embeds Grafana dashboards by specifying <b>uid</b> in <code>&lt;cd-grafana&gt;</code> components. If a Grafana dashboard is updated with uid changed, uid property in corresponding <code>&lt;cd-grafana&gt;</code> component should also be updated. We need a method to ensure these references are correct, or at least exist.  In the short term, a script can be added to check a <code>&lt;cd-grafana&gt;</code> always refer to a existing Grafana dashboard. In the long term, we can add some e2e tests to verify correctness of embedded dashboards.			
<b>Related issues:</b>			
Related to mgr - Bug #39971: Several embedded Grafana dashboards are not disp...		<b>Resolved</b>	<b>05/20/2019</b>
Copied to mgr - Backport #42956: nautilus: mgr/dashboard: Need a method to ch...		<b>Resolved</b>	

## History

### #1 - 05/23/2019 04:46 AM - Kiefer Chang

- Related to Bug #39971: Several embedded Grafana dashboards are not displayed due to changed uids added

### #2 - 05/23/2019 04:47 AM - Kiefer Chang

- Subject changed from Need a method to check references to Grafana Dashboards are correct or exist to Need a method to check references to Grafana dashboards are correct or exist

### #3 - 05/23/2019 06:23 AM - Kiefer Chang

- Assignee set to Kiefer Chang

### #4 - 05/23/2019 09:58 AM - Kiefer Chang

- Status changed from New to In Progress

Short term solution: check every `<cd-grafana>` component has a mapped Grafana dashboard

My proposals are below:

#### Approach 1

A script is created to check mappings (

[https://github.com/bk201/ceph/blob/5cc01a2b91c7eb1950932cf24a69e7aed4a713f3/src/pybind/mgr/dashboard/tools/check\\_grafana\\_references.py](https://github.com/bk201/ceph/blob/5cc01a2b91c7eb1950932cf24a69e7aed4a713f3/src/pybind/mgr/dashboard/tools/check_grafana_references.py)):

Running this script to detect if there is any mismatch between two parties:

```
$ cd /ceph/src/pybind/mgr/dashboard
$ python tools/check_grafana_references.py frontend/src/app ../../../../monitoring/grafana
Extract <cd-grafana> components and check UIDs
Found mappings:
-xyV8KCiz (frontend/src/app/ceph/pool/pool-details/pool-details.component.html:14)
```

```
-> Ceph Pool Details (../../../../monitoring/grafana/dashboards/pool-detail.json)
41FrpeUiz (frontend/src/app/ceph/block/rbd-images/rbd-images.component.html:15)
-> RBD Overview (../../../../monitoring/grafana/dashboards/rbd-overview.json)
tb09LAIzZ (frontend/src/app/ceph/cephfs/cephfs-detail/cephfs-detail.component.html:46)
-> MDS Performance (../../../../monitoring/grafana/dashboards/cephfs-overview.json)
WakugZpiz (frontend/src/app/ceph/rgw/rgw-daemon-list/rgw-daemon-list.component.html:17)
-> RGW Overview (../../../../monitoring/grafana/dashboards/radosgw-overview.json)
x5ARzZtmk (frontend/src/app/ceph/rgw/rgw-daemon-details/rgw-daemon-details.component.html:17)
-> RGW Instance Detail (../../../../monitoring/grafana/dashboards/radosgw-detail.json)
y0KGL0iZz (frontend/src/app/ceph/cluster/hosts/hosts.component.html:30)
-> Host Overview (../../../../monitoring/grafana/dashboards/hosts-overview.json)
rtOg0AiWz (frontend/src/app/ceph/cluster/hosts/host-details/host-details.component.html:4)
-> Host Details (../../../../monitoring/grafana/dashboards/host-details.json)
CrAHE0iZz (frontend/src/app/ceph/cluster/osd/osd-details/osd-details.component.html:47)
-> OSD device details (../../../../monitoring/grafana/dashboards/osd-device-details.json)
lo02I1Aiz (frontend/src/app/ceph/cluster/osd/osd-list/osd-list.component.html:72)
-> OSD Overview (../../../../monitoring/grafana/dashboards/osds-overview.json)
```

Components that have no mapped Grafana dashboards:

```
z99hzWtmh (frontend/src/app/ceph/pool/pool-list/pool-list.component.html:36)
```

Checking Grafana dashboards UIDs: ERROR

### Approach 2 (WIP, suggested by Kanika)

1. <cd-grafana> component does not refer uid directly.
2. Add a new input property `grafana-dashboard-name`. uid of Grafana dashboard is resolved by referring to another mapping file during initialization of component.
3. The mapping file contains a object that maps from all dashboard names to Grafana uids.
4. A script is created to parse the mapping file and check if Grafana dashboards can be found by uids.

Benefits of this approach

- All mappings are consolidated in a mapping file.
- If Grafana dashboards are updated, a developer only needs to update this mapping file. No need to jumping around for all <cd-grafana> components.

**#5 - 05/23/2019 10:34 AM - Lenz Grimmer**

Thanks for your proposal, much appreciated. If your first approach can be integrated with "make check", this would be a good first step in making sure we're not running into the same issue again. The second option is much cleaner and would be my preference - depending on how long it would take to implement these changes, we should consider taking that approach right away.

**#6 - 05/23/2019 10:35 AM - Lenz Grimmer**

- *Tags set to testing, qa, grafana*
- *Affected Versions v14.2.0, v14.2.1 added*

**#7 - 05/24/2019 04:21 AM - Kiefer Chang**

- *Pull request ID set to 28234*

Create PR for approach 1.

**#8 - 05/24/2019 06:18 AM - Lenz Grimmer**

- *Subject changed from Need a method to check references to Grafana dashboards are correct or exist to mgr/dashboard: Need a method to check references to Grafana dashboards are correct or exist*
- *Status changed from In Progress to Fix Under Review*

**#9 - 07/08/2019 11:13 AM - Lenz Grimmer**

A PR to implement approach 1 has been merged now. Should this one be backported to Nautilus, to capture any regressions?  
Do we still plan to implement approach 2 ?

**#10 - 07/10/2019 09:43 AM - Kiefer Chang**

Lenz Grimmer wrote:

A PR to implement approach 1 has been merged now. Should this one be backported to Nautilus, to capture any regressions?

If we always cherry-pick changes from master back to stable branches, we can say the regression possibility is low because the check is already done on master.

I can help with backporting this.

Do we still plan to implement approach 2 ?

I'd suggest yes, should I create a new issue?

**#11 - 11/22/2019 08:09 AM - Kiefer Chang**

- *Status changed from Fix Under Review to Resolved*

- Backport set to nautilus

**#12 - 11/22/2019 08:11 AM - Kiefer Chang**

- Status changed from Resolved to Pending Backport

**#13 - 11/22/2019 08:34 AM - Nathan Cutler**

- Copied to Backport #42956: nautilus: mgr/dashboard: Need a method to check references to Grafana dashboards are correct or exist added

**#14 - 02/07/2020 01:49 PM - Nathan Cutler**

- Status changed from Pending Backport to Resolved

While running with --resolve-parent, the script "backport-create-issue" noticed that all backports of this issue are in status "Resolved" or "Rejected".